718 NEOPRENE COMPRESSION SEAL

718.01 DESCRIPTION

Work consists of furnishing and installing neoprene compression seals to be used on joints where shown on the plans.

718.02 MATERIALS

The neoprene compression seal shape shall be the angled, webbed design as shown on plans and shall have the physical properties described as follows:

PROPERTY	ASTM TEST	REQUIREMENTS
Tensile strength	D 412	2,000 psi min.
Elongation at break	D 412	250 percent min.
Hardness, Type A durometer	D 2240 (modified)	55 +/- 5
Compression set, 70 hr. @ 212°F, maximum	D 395 Method B (modified)	40 percent
Oven aging, 70 hr @ 212°F	D 573	
Tensile strength loss max.		20 percent
Elongation, loss maximum		20 percent
Hardness, Type A durometer (points change)		0 to + 10
Ozone resistance 20 percent strain, 300 pphm, in air at 104°F (wiped with toluene to remove contamination)	D 1149	No cracks
Low temperature recovery, 72 hr. at 14°F, 50 percent deflection, min.	D 2628	88 percent
Low temperature recovery, 22 hr. at -20°F, min. 50 percent deflection	D 2628	83 percent
High temperature recovery 70 hr. at 212°F, min. 50 percent deflection	D 2628	85 percent

Adhesive - The lubricant-adhesive used when installing the preformed joint seals shall be as recommended by the seal manufacturer, and shall be a compound consisting of the same base polymer as the seals, blended with suitable volatile solvents. It shall have suitable consistency at the temperature at which the seals are to be installed, shall be compatible with the seals and the concrete, and shall be relatively unaffected by the normal moisture in the concrete.

The lubricant-adhesive shall be delivered in containers plainly marked with the manufacturer's name or trademark, lot number and date of manufacture.

718.03 CONSTRUCTION REQUIREMENTS

The temperature at the time of joint construction determines the width of the working joint. The Contractor shall form the joint allowing for temperature variations found on the drawing or as directed by the Engineer.

The seal size for all joints shall be approved by the Engineer and shall be suitable for the joint movement caused by thermal expansion and contraction.

Joint preparation shall be as shown on the contract drawings and shall otherwise conform to the manufacturer's recommendations. All surfaces to receive the compression seal shall be free from dirt, water, oil, rust, frost and any other loose foreign debris which may be detrimental to effective joint sealing. All joints to receive the compression seal shall be free from defects such as spalls, cracks or loose materials. The joint sides shall be constructed straight and parallel to each other to the proper width and depth as shown on the plans.

For ease of installation, the air temperature should be below 85°F. A continuous coat of adhesive shall be applied to both joint interfaces immediately prior to seal installation. The adhesive shall not be applied below 40°F. Unless otherwise specified, the seal shall be recessed 1/8 inch to 1/4 inch below the surface depending on seal size application and as directed by the Engineer.

718.04 MEASURE AND PAYMENT

The unit of measure for Neoprene Compression Seal will be the linear foot, complete and in place.

Neoprene Compression Seal will be paid at the contract unit price per linear foot, which payment will include all labor, materials, tools, equipment and incidentals necessary to complete the work as specified herein.